

#### Authority to Construct/Permit to Operate 13255 and Part 70 Minor Modification 13255

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#### **EQUIPMENT OWNER/OPERATOR:**

ExxonMobil Production Company

220113

#### **EQUIPMENT LOCATION:**

Platform Heritage, Parcel OCS-P-0182, Santa Ynez Unit

#### STATIONARY SOURCE/FACILITY:

Exxon - SYU Project SSID: 01482 Platform Heritage FID: 08019

#### **EQUIPMENT DESCRIPTION:**

The temporary cable repair equipment is addressed in Section 2.2 of the Permit Evaluation.

#### PROJECT/PROCESS DESCRIPTION:

The operator will temporarily use a special vessel, the *Giulio Verne DP*, along with other support equipment to find and repair a fault in Cable C1. Cable C1 is one of six cables that provide electrical power and communication services to the SYU platforms. Cable C1 runs from shore to Platform Heritage. The fault is located southeast of Platform Heritage on the OCS in approximately 1,125 feet of water. This cable repair activity is expected to take about 25-days to complete. The cable repair activity is being exempted from the New Source Review provisions or Regulation VIII under the provisions of the marine vessel engine exemption in APCD Rule 202.F.8. This permit is necessary to restrict the potential to emit from the cable repair vessel engines to less than ten (10) tons per year of pollutant emissions.

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#### CONDITIONS:

This section lists the applicable permit conditions for Platform Heritage. Section A lists the standard administrative conditions. Section B lists 'generic' permit conditions, including emission standards, for all equipment in this permit. Section C lists conditions affecting specific equipment.

Conditions listed in Sections A, B, and C are enforceable by the USEPA, the APCD, the State of California and the public. Conditions listed in Section D are enforceable only by the APCD and the State of California. Where any reference contained in Sections 9.A, 9.B, or 9.C refers to any other part of this permit that part of the permit referred to is federally enforceable.

#### 9.A Standard Administrative Conditions

The following federally enforceable administrative permit conditions apply to Platform Heritage. In the case of a discrepancy between the wording of a condition and the applicable APCD rule, the wording of the rule shall control.

- A.1 **Condition Acceptance.** Acceptance of this operating permit by ExxonMobil shall be considered as acceptance of all terms, conditions, and limits of this permit. [*Re: PTO 9102*]
- A.2 **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.* [*Re: PTO 9102*]
- A.3 **Defense of Permit.** ExxonMobil agrees, as a condition of the issuance and use of this PTO, to defend at its sole expense any action brought against the APCD because of issuance of this permit. ExxonMobil shall reimburse the APCD for any and all costs including, but not limited to, court costs and attorney's fees which the APCD may be required by a court to pay as a result of such action. The APCD may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve ExxonMobil of its obligation under this condition. The APCD shall bear its own expenses for its participation in the action. [*Re: PTO 9102*]
- A.4 **Reimbursement of Costs**. All reasonable expenses, as defined in APCD Rule 210, incurred by the APCD, APCD contractors, and legal counsel for all activities that follow the issuance of this PTO permit, including but not limited to permit condition implementation, implementation of Regulation XIII (*Part 70 Operating Permits*), compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by ExxonMobil as required by Rule 210. [*Re: PTO 9102, APCD Rule 210*]
- A.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the APCD or its agents, ExxonMobil shall make such records available or provide access to such facilities upon notice from the APCD. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. [*Re: PTO 9102*]

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- A.6 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [*Re: PTO 9102*]
- A.7 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the APCD's project file) and the APCD's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit. [Re: PTO 9102]
- A.8 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on the Santa Ynez Unit Project by:
  - (a) The County of Santa Barbara in Final Development Plan Permit 87-DP-32cz and any subsequent modifications;
  - (b) The Santa Barbara County Air Pollution Control District in Authority to Construct No. 5651, Permit to Operate No. 5651, and any subsequent modifications to either permit; and
  - (c) The California Coastal Commission in the consistency determination for the Project with the California Coastal Act. [*Re: PTO 9102*]
- A.9 **Compliance with Department of Interior Permits.** ExxonMobil shall comply with all air quality control requirements imposed by the Department of the Interior in the Development and Production Plan approved for Platform Heritage on September 20, 1985 and any subsequent modifications. Such requirements shall be enforceable by the APCD. [*Re: PTO 9102*]
- A.10 Compliance with Permit Conditions.
  - (a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.
  - (b) This permit does not convey property rights or exclusive privilege of any sort.
  - (c) Any permit noncompliance with sections 9.A, 9.B, or 9.C constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
  - (d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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- (e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
- (f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
  - (1) Compliance with the permit, or
  - (2) Whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.
- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. [Re: 40 CFR Part 70.6.(a)(6), APCD Rules 1303.D.1]
- A.11 **Emergency Provisions.** The permittee shall comply with the requirements of the APCD, Rule 505 (Upset/Breakdown rule) and/or APCD Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the APCD, in writing, a "notice of emergency" within 2 working days of the emergency. The "notice of emergency" shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [*Re: 40 CFR 70.6(g), APCD Rule 1303.F*]

#### A.12 Compliance Plans.

- (a) The permittee shall comply with all federally enforceable requirements that become applicable during the permit term in a timely manner.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards. [Re: APCD Rule 1302.D.2]
- A.13 **Right of Entry.** The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:
  - (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
  - (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
  - (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times.

    Monitoring of emissions can include source testing. [Re: APCD Rule 1303.D.2]

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- A.14 **Severability.** The provisions of this Permit to Operate are severable and if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [*Re: APCD Rules 103 and 1303.D.1*]
- A.15 **Payment of Fees.** The permittee shall reimburse the APCD for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the APCD and the USEPA pursuant to section 502(a) of the Clean Air Act. [Re: APCD Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)]
- A.16 **Prompt Reporting of Deviations.** The permittee shall submit a written report to the APCD documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 6 months after the date of occurrence. The report shall clearly document:
  - (a) The probable cause and extent of the deviation,
  - (b) Equipment involved,
  - (c) The quantity of excess pollutant emissions, if any, and
  - (d) Actions taken to correct the deviation.

The requirements of this condition shall not apply to deviations reported to APCD in accordance with Rule 505. Breakdown Conditions, or Rule 1303.F Emergency Provisions. [APCD Rule 1303.D.1, 40 CFR 70.6(a) (3)]

- A.17 **Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall be submitted on APCD approved forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1<sup>st</sup> and March 1<sup>st</sup>, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Compliance Verification Report" condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [*Re: APCD Rules 1303.D.1, 1302.D.3, 1303.2.c.*]
- A.18 **Federally Enforceable Conditions.** Each federally enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the APCD-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review [*Re: CAAA*, § 502(b)(6), 40 CFR 70.6(b)]

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- A.19 **Recordkeeping Requirements**. The permittee shall maintain records of required monitoring information that include the following:
  - (a) The date, place as defined in the permit, and time of sampling or measurements;
  - (b) The date(s) analyses were performed;
  - (c) The company or entity that performed the analyses;
  - (d) The analytical techniques or methods used;
  - (e) The results of such analyses; and
  - (f) The operating conditions as existing at the time of sampling or measurement;
  - (g) The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the APCD upon request. [Re: APCD Rule 1303.D.1.f, 40 CFR 70.6(a)(3)]
- A.20 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:
  - (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
  - (b) <u>Inaccurate Permit Provisions</u>: If the APCD or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
  - (c) <u>Applicable Requirement</u>: If the APCD or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
  - (d) Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.

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- (e) If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit. [Re: 40 CFR 70.7(f), 40 CFR 70.6(a)]
- A.21 **Credible Evidence.** Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding. [Re: 40 CFR 52.12(c)]

#### 9.B. Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally enforceable. In the case of a discrepancy between the wording of a condition and the applicable APCD rule, the wording of the rule shall control.

- B.1. **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of APCD Rule 303. [*Re: APCD Rule 301*]
- B.2. **Visible Emissions (Rule 302).** ExxonMobil shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
  - (a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
  - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.(a) above.
  - (c) ExxonMobil shall determine compliance with the requirements of this Condition/Rule and Condition C.49 in Part 70/APCD PTO 5651. [Re: APCD Rule 302]
- B.3. **Nuisance** (**Rule 303**). No pollutant emissions from any source at ExxonMobil shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [*Re: APCD Rule 303*]
- B.4. **PM Concentration South Zone** (**Rule 305**). ExxonMobil shall not discharge into the atmosphere, from any source, particulate matter in excess of the concentrations listed in Table 305(a) of Rule 305. [*Re: APCD Rule 305*]

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- B.5. **Specific Contaminants** (**Rule 309**). ExxonMobil shall not discharge into the atmosphere from any single source sulfur compounds, hydrogen sulfide, combustion contaminants and carbon monoxide in excess of the standards listed in Sections A, B and G of Rule 309. ExxonMobil shall not discharge into the atmosphere from any fuel burning equipment unit, sulfur compounds, nitrogen oxides or combustion contaminants in excess of the standards listed in Section E and F of Rule 309. [*Re: APCD Rule 309*]
- B.6. **Sulfur Content of Fuels (Rule 311).** ExxonMobil shall not burn fuels with a sulfur content in excess of 0.5% (by weight) for liquid fuels and 239 ppmvd or 15 gr/100scf (calculated as H2S) for gaseous fuels. Compliance with this condition shall be based on continuous monitoring of the fuel gas with H<sub>2</sub>S and HHV analyzers, quarterly total sulfur content measurements of the fuel gas using ASTM or other APCD-approved methods and diesel fuel billing records or other data showing the certified sulfur content for each shipment. [*Re: APCD Rule 311*]

#### 9.C Requirements and Equipment Specific Conditions

This section contains non-generic federally-enforceable conditions, including emissions and operations limits, monitoring, recordkeeping, and reporting for each specific equipment group. This section may also contain other non-generic conditions. The permit conditions below apply only to the cable repair activity.

- C.1 **Cable Repair Activity Termination.** Cable repair activity termination is defined as the date the repair activity vessel leaves the California Coastal Waters adjacent to Santa Barbara County as defined in SBCAPCD Rule 102 after completion of all repair work. ExxonMobil shall notify the APCD within 3-days after the repair activity termination date.
- C.2 **Cable Repair Activity Emissions Cap**. Actual emissions of NO<sub>X</sub> from the repair activity engines listed in Tables 1-6 of this permit shall not exceed 10 tons during the duration of this repair activity. The duration of the repair activity shall not exceed 12 consecutive months.
- C.3 **Cable Repair Activity Start-up Notification.** ExxonMobil shall notify the APCD within 2 days after the cable repair vessel has entered the California Coastal Waters adjacent to Santa Barbara County as defined in SBCAPCD Rule 102.

#### C.4 Operational Restrictions.

- a. Main Engine #4 and Main Engine #5 as listed in Table 6 of this permit shall only be used in the event of the breakdown of one of the other Daihatsu main engines.
- b. At no time shall more than three of the Main engines operate at the same time.
- c. The permittee may only add CARB Diesel to each IC engine or any fuel tank directly attached to each IC engine. Diesel fuel used by all IC engines shall have a sulfur content no greater than 0.0015 weight percent (15 ppmw).

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- d. The trash incinerator shall be locked out for the duration of the repair activity. The lockout procedures shall be consistent with those in Section 2.b of the SYU C1CR-2 Cable Repair Activity Fuel Measurement Plan approved by the APCD on September 15, 2009.
- C.5 **Fuel Monitoring.** ExxonMobil shall implement fuel use monitoring in accordance with the *SYU C1CR-2 Cable Repair Activity Fuel Measurement Plan* approved by the APCD on September 15, 2009.
- C.6 **Cable Repair Activity Daily Report.** ExxonMobil shall record engine fuel use and project emissions on a daily basis. A fuel use and emissions report, including cumulative project and daily totals, shall be provided via e-mail to the APCD each day (attn: David Harris) for the duration of the project. Emission calculations documentation for the daily reports shall be provided to the APCD upon request.
- C.7 **Cable Repair Activity Completion Report.** Within 14-days after the repair activity termination, ExxonMobil shall submit a report to the APCD detailing the start and end dates of the repair activity, the volume of fuel consumed in each of the repair activity engines and the total emissions for the repair activity. The report shall include fuel purchase records or a written statement on the fuel supplier's letterhead signed by an authorized representative of the company confirming that the fuel purchased meets the requirements of Permit Condition C.4.c. Supporting emission calculations shall also be submitted. In addition, emissions from the cable repair vessel shall be reported in the CVR required per Condition 9.C.10 of Part 70/PTO 9102-R4.
- C.8 **Documents Incorporated by Reference.** The document listed below, including any APCD-approved updates thereof, is incorporated herein and shall have the full force and effect of a permit condition for this operating permit. This document shall be implemented for the life of the project.
  - a. SYU C1CR-2 Cable Repair Activity Fuel Measurement Plan (approved by the APCD on September 15, 2009).

#### 9.D APCD-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the APCD and the State of California. These conditions are issued pursuant to APCD Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of the facility complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health & Safety Code.

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- D.1 **Permit Activation.** All aspects of this permit are enforceable by the APCD and the State of California upon the issuance date stamped below. The Part 70 aspects of this permit are not final until:
  - (a) The USEPA has provided written comments to the APCD and these comments require no modification to this permit. The APCD will issue a letter stating that this permit is a final Part 70 permit. The effective date that this permit will be considered a final Part 70 permit will be the date stamped on the APCD's letter.
  - (b) After the USEPA has provided the APCD written comments that require a modification to this permit, the APCD will modify this permit to address the USEPA's comments and issue the Part 70 permit as final. The re-issued permit will supersede this permit in its entirety.

AIR POLLUTION CONTROL OFFICER
DATE

#### Attachments:

- Table 1-5 Cable Repair Project Emission Tables
- Table 6 Giulio Verne Permitted Engines
- Permit Evaluation for Authority to Construct/Permit to Operate 13255

#### Notes:

- This permit expires 14 days after Cable Repair Activity Termination as defined in Condition C.1.

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Table 1: Operating Equipment Description ExxonMobil Cable C1 Repair Activity ATC-PTO 13255

Equipment Item	Description		Device	Specifica	ations			ge Data		Maxim	um Ope	rating Sc	hedule	References
		Exxon ID #	Fuel	%S	Size	Units	BSFC	Units	Load	hr	day	qtr	year	
Transit To/From Fie	ld (Within SBC)													
Cable Repair Vessel (Giulio Verne)	Propulsion (Gen Set) Emergency Generator Harbor		Diesel Diesel Diesel Diesel Diesel Diesel	0.0015 0.0015 0.0015 0.0015 0.0015 0.0015	2200 2200 2200 2200 2200 2700	bhp bhp bhp bhp bhp bhp	0.055 0.055 0.055 0.055 0.055 0.068	gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr	0.25 0.25 0.25 0.00 0.00 0.50	1 1 1 0 0	24 24 24 0 0	12 12 12 0 0	12 12 12 0 0	Emergency Only Emergency Only
	Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3)		Diesel Diesel Diesel Diesel Diesel	0.0015 0.0015 0.0015 0.0015 0.0015	69.5 20 5 30 250	bhp bhp bhp bhp bhp	0.068 0.068 0.068 0.068 0.055	gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr	0.50 0.50 0.50 0.80 0.50	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Repair of Fault (Wit	hin SBC)													
Cable Repair Vessel (Giulio Verne)	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator LCM 10 Ton Generator ROV Generators (2)		Diesel	0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015 0.0015	2200 2200 2200 2200 2200 670 69.5 20 5 30 250 120 675 218 300	bhp	0.055 0.055 0.055 0.055 0.055 0.068 0.068 0.068 0.068 0.055 0.068 0.055	gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr gal/bhp-hr	0.24 0.24 0.24 0.00 0.00 0.85 0.85 0.85 0.85 0.50 0.60 0.40 0.35	1 1 0 0 0.25 0 0.25 0.25 0.25 0.25 0 1 1	24 24 0 0 0.25 0 0.25 0.25 0.25 0.25 0 24 24 24	536.4 536.4 536.4 0 0 0.75 0.75 0.75 0.75 0.75 0.75 0.48 536.4 72 536.4	536.4 536.4 0 0 0.75 0 0.75 0.75 0.75 0.75 0.75 0.48 536.4 72 536.4	Emergency Only Emergency Only Test Only Locked Out Test Only Test Only Test Only Test Only Locked Out

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Table 2: Equipment Emission Factors ExxonMobil Cable C1 Repair Activity ATC-PTO 13255

Equipment Item	Description				E	mission Fa	actors			Reference
		Exxon ID #	NOx	ROC	CO	SOx	PM	PM10	Units	
Transit To/From Fie	eld (Within SBC)									
Cable Repair Vessel (Giulio Verne)	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3)		336.70 336.70 336.70 336.70 336.70 336.70 561.17 505.05 561.17 561.17	22.60 22.60 22.60 22.60 22.60 12.82 44.91 44.91 44.89 44.89	59.80 59.80 59.80 59.80 59.80 100.00 121.45 121.45 121.45 120.25	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	33.00 33.00 33.00 33.00 33.00 33.00 12.73 41.67 41.67 40.08 40.08	31.7 31.7 31.7 31.7 31.7 12.22 40.00 40.00 40.00 38.48 38.48	Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal Ib/1000gal	AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Volume 1 (Table 3.4-1) [TC, TR w/EC, AC, HPI] AP-42 Volume 1 (Table 3.3-1) AP-42 Volume 1 (Table 3.3-1) AP-42 Volume 1 (Table 3.3-1) Permit Crew Boat (Uncontrolled) Permit Crew Boat (Uncontrolled)
Repair of Fault (Wit	thin SBC)									
Cable Repair Vessel (Giulio Verne)	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator LCM 10 Ton Generator ROV Generators (2)		336.70 336.70 336.70 336.70 336.70 336.70 561.17 505.05 561.17 561.17 561.17 561.17 565.05 180.40	22.60 22.60 22.60 22.60 22.60 12.82 44.91 44.89 44.89 44.89 44.91 12.82 44.91 12.03	59.80 59.80 59.80 59.80 59.80 100.00 121.45 121.45 120.25 120.25 120.25 121.45 100.00 121.45 104.22	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	33.00 33.00 33.00 33.00 33.00 33.00 12.73 41.67 40.08 40.08 41.67 12.73 41.67 6.01	31.7 31.7 31.7 31.7 31.7 12.22 40.00 40.00 40.00 38.48 40.00 12.22 40.00 5.77	lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal lb/1000gal	AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Vol. 1 (Table 3.4-1) [TC, EAC & HPI] AP-42 Volume 1 (Table 3.4-1) [TC, TR w/EC, AC, HPI] AP-42 Volume 1 (Table 3.3-1) AP-42 Volume 1 (Table 3.3-1) AP-42 Volume 1 (Table 3.3-1) Permit Crew Boat (Uncontrolled) Permit Crew Boat (Uncontrolled) AP-42 Volume 1 (Table 3.3-1) AP-42 Vol. 1 (Table 3.4-1) [TR w/EC, TC] AP-42 Vol. 1 (Table 3.3-1) [HPI] Tier 2 Engine

#### Notes

<sup>1.</sup> NOx emission factors for all engines based on 14 gm/bhp-hr times the appropriate factor from the APCD IC Engine NOx Control Efficiencies Document

<sup>2.</sup> ROC and CO emission factors for Main Propulsion engines based on AP-42, Volume II:Mobile Sources, Table 3.2.3-3, consistent with APCD permitting of crew and supply boat main engines. Emission factors for main propulsion engines assume vessel engines are each 2500 bhp operating in "slow" mode.

<sup>3.</sup> PM/PM10 emission factors for Main Propulsion engines based on Kelly et. al (1981) consistent with APCD permitting of crew and supply boats

<sup>4.</sup> Emission factors (other than NOx) for the survival crafts, auxiliary skiffs, emergency generators, VM, capstan generator, LCM, and Winch based on AP-42 chapters 3.3 and 3.4.

# DRAFT Authority to Construct/Permit to Operate 13255 and Part 70 Minor Modification 13255

Table 3: Short-Term Emissions ExxonMobil Cable C1 Repair Activity ATC-PTO 13255

	Description		Юx	R	OC	C	:0	S	Ox	F	PM	PI	VI10
	Exxon	ID# lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/da
1 Cable Repa	air (C1CR-2)												
ransit To/From F	Field (Within SBC)												
Cable Repair Vess	el Propulsion (Gen Set)	10.19	244.44	0.68	16.41	1.81	43.41	0.01	0.15	1.00	23.96	0.96	23.0
(Giulio Verne)	Propulsion (Gen Set)	10.19	244.44	0.68	16.41	1.81	43.41	0.01	0.15	1.00	23.96	0.96	23.0
	Propulsion (Gen Set)	10.19	244.44	0.68	16.41	1.81	43.41	0.01	0.15	1.00	23.96	0.96	23.0
	Propulsion (Gen Set)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Propulsion (Gen Set)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Emergency Generator Harbor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Emergency Generator CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Emergency FWP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Emergency Air Compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Survival Crafts (4)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Aux Skiffs (3)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
epair of Fault (V	Vithin SBC)												
able Repair Vess	el Propulsion (Gen Set)	9.78	234.67	0.66	15.75	1.74	41.68	0.01	0.15	0.96	23.00	0.92	22.0
Cable Repair Vess (Giulio Verne)	el Propulsion (Gen Set) Propulsion (Gen Set)	9.78 9.78	234.67 234.67	0.66 0.66	15.75 15.75	1.74 1.74	41.68 41.68	0.01 0.01	0.15 0.15	0.96 0.96	23.00 23.00	0.92 0.92	
													22.
	Propulsion (Gen Set)	9.78	234.67	0.66	15.75	1.74	41.68	0.01	0.15	0.96	23.00	0.92	22. 22.
	Propulsion (Gen Set) Propulsion (Gen Set)	9.78 9.78	234.67 234.67	0.66 0.66	15.75 15.75	1.74 1.74	41.68 41.68	0.01 0.01	0.15 0.15	0.96 0.96	23.00 23.00	0.92 0.92	22.0 22.0 0.0
	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set)	9.78 9.78 0.00	234.67 234.67 0.00	0.66 0.66 0.00	15.75 15.75 0.00	1.74 1.74 0.00	41.68 41.68 0.00	0.01 0.01 0.00	0.15 0.15 0.00	0.96 0.96 0.00	23.00 23.00 0.00	0.92 0.92 0.00	22. 22. 0.0 0.0
	Propulsion (Gen Set)	9.78 9.78 0.00 0.00	234.67 234.67 0.00 0.00	0.66 0.66 0.00 0.00	15.75 15.75 0.00 0.00	1.74 1.74 0.00 0.00	41.68 41.68 0.00 0.00	0.01 0.01 0.00 0.00	0.15 0.15 0.00 0.00	0.96 0.96 0.00 0.00	23.00 23.00 0.00 0.00	0.92 0.92 0.00 0.00	22.0 22.0 0.0 0.0 0.1
	Propulsion (Gen Set) Emergency Generator Harbor	9.78 9.78 0.00 0.00 3.26	234.67 234.67 0.00 0.00 3.26	0.66 0.66 0.00 0.00 0.12	15.75 15.75 0.00 0.00 0.12	1.74 1.74 0.00 0.00 0.97	41.68 41.68 0.00 0.00 0.97	0.01 0.01 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12	23.00 23.00 0.00 0.00 0.12	0.92 0.92 0.00 0.00 0.12	22. 22. 0.0 0.0 0.1 0.0
	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.01	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01	0.01 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00	22. 22. 0.0 0.0 0.1 0.0 0.0
	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4)	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05	0.01 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02	22.0 0.0 0.0 0.1 0.0 0.0 0.0
	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3)	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00	0.01 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	22.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0
	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 2.75	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 65.94	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 5.28	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 0.59	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 14.27	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 4.90	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00	22.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 4.7
	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 2.75 5.42	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 65.94 130.00	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.22 0.19	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 5.28 4.57	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 0.59 1.49	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 14.27 35.64	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.19	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 4.90 4.54	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.18	22.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 4.7 4.3
	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator LCM 10 Ton Generator	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 2.75 5.42 2.62	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 65.94 130.00 62.89	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.22 0.19	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 5.28 4.57 5.59	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 0.59 1.49 0.63	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 14.27 35.64 15.12	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.19	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 4.54 5.19	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.18 0.21	22.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 4.7 4.3
	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator	9.78 9.78 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 2.75 5.42	234.67 234.67 0.00 0.00 3.26 0.00 0.15 0.04 0.23 0.00 65.94 130.00	0.66 0.66 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.22 0.19	15.75 15.75 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 5.28 4.57	1.74 1.74 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 0.59 1.49	41.68 41.68 0.00 0.00 0.97 0.00 0.04 0.01 0.05 0.00 14.27 35.64	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.00	0.96 0.96 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.19	23.00 23.00 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 4.90 4.54	0.92 0.92 0.00 0.00 0.12 0.00 0.01 0.00 0.02 0.00 0.20 0.18	22.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 4.7 4.3

# DRAFT Authority to Construct/Permit to Operate 13255 and Part 70 Minor Modification 13255

Table 4: Long-Term Emissions ExxonMobil Cable C1 Repair Activity ATC-PTO 13255

Equipment Item	Description		NO	Ox	RO	OC	С	0	S	Ox	P	M	PI	Л10
		Exxon ID #	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY
Transit To/From Fie	ld (Within SBC)													
Cable Repair Vessel	Propulsion (Gen Set)		0.06	0.06	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01
(Giulio Verne)	Propulsion (Gen Set)		0.06	0.06	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01
	Propulsion (Gen Set)		0.06	0.06	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01
	Propulsion (Gen Set)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Propulsion (Gen Set)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Emergency Generator Harbor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Emergency Generator CR		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Emergency FWP		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Emergency Air Compressor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Survival Crafts (4)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Aux Skiffs (3)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Repair of Fault (Wit	hin SBC)													
	•		0.50	0.00	0.40	0.40	0.47	0.47	0.00	0.00	0.00	0.00	0.05	0.05
Cable Repair Vessel	Propulsion (Gen Set)		2.62	2.62	0.18	0.18	0.47	0.47	0.00	0.00	0.26	0.26	0.25	0.25
	Propulsion (Gen Set) Propulsion (Gen Set)		2.62	2.62	0.18	0.18	0.47	0.47	0.00	0.00	0.26	0.26	0.25	0.25
Cable Repair Vessel	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set)		2.62 2.62	2.62 2.62	0.18 0.18	0.18 0.18	0.47 0.47	0.47 0.47	0.00 0.00	0.00 0.00	0.26 0.26	0.26 0.26	0.25 0.25	0.25 0.25
Cable Repair Vessel	Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set) Propulsion (Gen Set)		2.62 2.62 0.00	2.62 2.62 0.00	0.18 0.18 0.00	0.18 0.18 0.00	0.47 0.47 0.00	0.47 0.47 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.26 0.26 0.00	0.26 0.26 0.00	0.25 0.25 0.00	0.25 0.25 0.00
Cable Repair Vessel	Propulsion (Gen Set)		2.62 2.62 0.00 0.00	2.62 2.62 0.00 0.00	0.18 0.18 0.00 0.00	0.18 0.18 0.00 0.00	0.47 0.47 0.00 0.00	0.47 0.47 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00	0.26 0.26 0.00 0.00	0.25 0.25 0.00 0.00	0.25 0.25 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor		2.62 2.62 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR		2.62 2.62 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP		2.62 2.62 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4)		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3)		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator Capstan Generator		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00
Cable Repair Vessel	Propulsion (Gen Set) Emergency Generator Harbor Emergency Generator CR Emergency FWP Emergency Air Compressor Survival Crafts (4) Aux Skiffs (3) Winch 10 Ton Generator		2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	2.62 2.62 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.47 0.47 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.26 0.26 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00 0.00 0.00 0.00 0.00

#### Authority to Construct/Permit to Operate 13255 and Part 70 Minor Modification 13255

Table 5: Facility Potential to Emit ExxonMobil Cable C1 Repair Activity ATC - PTO 13255

#### A. Hourly (lb/hr)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Vessel Transit (Within SBC)	30.56	2.05	5.43	0.02	2.99	2.87
Cable Repair (Within SBC)	44.98	995.08	2.85	64.76	9.67	207.64

Note: Vessel transit and repair do not occur at the same time.

#### B. Daily (lb/day)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Vessel Transit (Within SBC)	733.33	49.22	130.24	0.46	71.87	69.00
Cable Repair (Within SBC)	995.08	2.85	64.76	9.67	207.64	0.03

Note: Vessel transit and repair do not occur at the same time.

#### C. Quarterly (tpq)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Vessel Transit (Within SBC)	0.18	0.01	0.03	0.00	0.02	0.02
Cable Repair (Within SBC)	9.81	0.61	2.02	0.01	0.85	0.81
Total	9.99	0.63	2.05	0.01	0.86	0.83

#### D. Annual (tpy)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Vessel Transit (Within SBC)	0.18	0.01	0.03	0.00	0.02	0.02
Cable Repair (Within SBC)	9.81	0.61	2.02	0.01	0.85	0.81
Total	9.99	0.63	2.05	0.01	0.86	0.83

#### Authority to Construct/Permit to Operate 13255 and Part 70 Minor Modification 13255

#### **Table 6 – Giulio Verne Permitted Engines**

<b>Equipment Type</b>	Description	Emission Controls <sup>1</sup>	Operational Status for Project	Permitting Exemptions
Main Engine #1	Daihatsu Model: 6 DV-22A Serial No.: D622045V	TC, EA, HPFI	In Use	202.F.8
Main Engine #2	Daihatsu Model: 6 DV-22A Serial No.: D622046V	TC, EA, HPFI	In Use	202.F.8
Main Engine #3	Daihatsu Model: 6 DV-22A Serial No.: D622047V	TC, EA, HPFI	In Use	202.F.8
Main Engine #4	Daihatsu Model: 6 DV-22A Serial No.: D622048V	TC, EA, HPFI	Alternate <sup>2</sup>	202.F.8
Main Engine #5	Daihatsu Model: 6 DV-22A Serial No.: D622049V	TC, EA, HPFI	Alternate <sup>2</sup>	202.F.8
Engine for Emergency Generator (Harbor)	Caterpillar Model: 3508 DITA Serial No.: 23Z00593	TC, TR w/EC, AC, HPFI	Safety Reqd. Testing Only	202.F.8
Engine for Emergency Generator (Control Room)	KHD Deutz A50 Model: 16L912 Serial No.: 676348		Safety Reqd. Testing Only	202.F.8
Engine for Emergency Fire Water Pump	Yanmar Model: 2QMLP Serial No.: S2 24778- 0010	PC, HPFI	Safety Reqd. Testing Only	202.F.8
Engine for Emergency Air Compressor	Yanmar Model: SA 3H Serial No.: 83-30024		Safety Reqd. Testing Only	202.F.8

<sup>&</sup>lt;sup>1</sup> TC = Turbocharged, EA = Enhanced Aftercooler, EC = Electronic Controls,,HPFI = High Pressure Fuel Injectors, TR = Timing Retard, PC = Precombustion Chamber

<sup>2</sup> No more than three main engines will be operated at any time except in case of an emergency; the other two engines will be available to replace one of the operating engines.

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<b>Equipment Type</b>	Description	Emission Controls <sup>1</sup>	Operational Status for Project	Permitting Exemptions
Engines for Survival Craft (4)	Lister Model: 1478 STW3MGR Serial No.: 3300071STW3C-01 3300068STW3C-01 3300069STW3C-01 3300074STW3C-01		Safety Reqd. Testing Only	202.F.8
Auxiliary Engines- Support Skiffs (3)	Cummins Model: 6BTA Serial No.: TBD		Not Required	202.F.8
Support Engine – LCM 10-Ton Generator	KHD Deutz Model: BF64513R/RC Serial No.: 7358977	HPFI	In Use	202.F.8
Support Engine – Capstan Generator	Kirloskar Cummins Ltd Model: VTA 28-G1M Serial No.: 25199343	TC, TR w/EC	In Use	202.F.8
Support Engine – Winch 10 Ton Generator	VM Model: 1056 SU Serial No.: 610462		In Use	202.F.8
Auxiliary Engine – ROV Generators (2)	Rental Diesel Engine Generators	Tier 2	In Use	202.F.8



## PERMIT EVALUATION FOR <u>AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13255</u> and PART 70 MINOR MODIFICATION 13255

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#### 1.0 BACKGROUND

- 1.1 General: Final Permit to Operate Modification 9102-04 was issued on July 10, 2008, for the repair of a fault in Cable C1 that runs from Platform Heritage to shore and provides electricity and communications for the platform. The repair project was successfully completed in October of 2008 and the project was limited to less than 10 tons of NOx emissions. On April 20, 2009, Cable C1experienced another fault in one of the three phases. ExxonMobil conducted several tests and determined that the fault was most likely located near the shore side splice about 2,800 feet southeast of the Platform Heritage power cable J-tube bell month in about 1125 feet of water. An application for another temporary repair activity of the C1 cable was submitted on July 23, 2009, and deemed complete on August 20, 2009. This temporary repair activity is estimated to take 25 days and the permit limits the cable repair activity engine NO<sub>x</sub> emissions to 10 tons. Consequently, this repair activity is exempt from the New Source Review provisions of regulation VIII by the Rule 202.F.8 exemption for marine vessel engines associated with maintenance and repair activities as a stationary source. All engines were verified to be either propulsion engines, auxiliary engines or permanently affixed support engines, as required by the rule.
- 1.2 <u>Permit History</u>: The following is a summary of permit activity for Platform Heritage since the last reevaluation of PT-70/Reeval 09102-R4 in June 2009:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
ATC 13240	8/6/2009	Burner modification to the central process heaters to bring it back into compliance with permit emission limits.

1.3 Compliance History: The repair activity included in this permit has no compliance history.

#### 2.0 ENGINEERING ANALYSIS

2.1 <u>Equipment/Processes</u>: This cable repair requires lifting a portion of failed Cable C1 from the ocean floor and splicing in a new section. The sea based repair requires a vessel having the following general specifications: dynamic positioning (DP), GPS reference, helicopter deck, approximately 5,000 kw of thruster power, a 20 ton or greater crane, two working class ROVs, clear deck space for splicing, space for caterpillar traction equipment, and adequate cabin space for splice crew. The operator will temporarily use a special vessel, the *Giulio Verne*, along with other support equipment

### PERMIT EVALUATION FOR <u>AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13255</u> and PART 70 MINOR MODIFICATION 13255

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described in this permit to complete this task. The cable repair activity is expected to take up to 25-days to complete. The emissions from this activity are entirely from internal combustion engines.

Monitoring of fuel use and emissions reporting are addressed in *SYU C1CR-2 Cable Repair Activity Fuel Measurement Plan* that is an enforceable part of this permit.

- 2.2 <u>Emission Controls</u>: Table 6 of this permit lists the engines and their controls aboard the *Giulio Verne* that either claim exemption provided by APCD rules, or are locked out.
- 2.3 <u>Cable Repair Activity Emission Factors</u>: Emission factors and calculated emissions for each device and the cable repair activity engines listed Table 6 of this permit are documented in Tables 1-5 of this permit. The assumptions are based on engine specific data provided by the applicant and may be found in the administrative file for this permit.
- 2.4 <u>Reasonable Worst Case Emission Scenario for the Cable Repair Activity</u>: The following are the activity phases and assumptions used to calculate the permitted emissions for this activity:

#### Transit:

- Transit to and from the platform will take 6 hours each way, for a total of 12 hours of transit time.
- Vessel transit requires three main engines, operated at a load of approximately 0.25.
- Auxiliary engines will not be used during transit.

#### Cable Repair:

- Cable repair operations are assumed to occur 24 hours/day for up to 22.4 days.
- The cable repair activities will require three main engines. Typical actual loads will be about 0.24.
- The emergency generator and survival craft engines will only be used for testing.

Transit and cable repair activities do not overlap, and the worst case emission scenario is based on the following assumptions in the application:

- Assume 24 hours/day main engine operation over the course of the activity.
- Assume three main engines in use for the entire cable repair activity.
- Assume a max load of 0.24 on the main engines at all times.
- 2.5 <u>Special Calculations</u>: There are no special calculations.
- 2.6 BACT Analyses: Best Available Control Technology was not required for the cable repair activity.
- 2.7 <u>Enforceable Operational Limits</u>: The permit has enforceable operating conditions that ensure the actual emissions of any pollutant are limited to 10 tons for the C1 Cable Repair Project.
- 2.8 <u>Monitoring, Recordkeeping, and Reporting Requirements</u>: ExxonMobil is required to comply with an approved *SYU C1CR-2 Cable Repair Activity Fuel Measurement Plan* and the conditions of this permit that require that the fuel usage and permit emissions be reported on a daily basis and at the

### PERMIT EVALUATION FOR <u>AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13255</u> and

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end of the cable repair activity and included in the Compliance Verification Reports for the Santa Ynez Unit project.

#### 3.0 REEVALUATION REVIEW (not applicable)

#### 4.0 REGULATORY REVIEW

- 4.1 <u>Partial List of Applicable Rules</u>: This activity is anticipated to operate in compliance with the following rules:
  - Rule 101. Compliance of Existing Facilities
  - Rule 201. Permits Required
  - Rule 202. Exemptions to Rule 201
  - Rule 205. Standards for Granting Permits
  - Rule 302. Visible Emissions
  - Rule 303. Nuisance
  - Rule 309. Specific Contaminants
  - Rule 310. Odorous Organic Sulfides
  - Rule 311. Sulfur Content of Fuels
  - Rule 333. Control of Emissions from Reciprocating Internal Combustion Engines
  - Rule 505. Breakdown Procedures
  - Rule 801. New Source Review
  - Rule 802. Nonattainment Review
  - Rule 803. Prevention of Significant Deterioration

#### 4.2 Rules Requiring Review:

- 4.2.1 Rule 202 Exemptions to Rule 201: Section F.8 exempts marine vessel engines (propulsion engines, auxiliary engines and permanently affixed support engines) associated with repair activities at a stationary source provided that the duration does not exceed 12 consecutive months and the potential to emit is less than 10 tons of NOx, SOx, ROCs or particulate matter. An owner or operator may qualify for an exemption from Regulation VIII by obtaining an Authority to Construct/Permit to Operate which limits the potential to emit of such equipment to less than 10 tons per year.
- 4.2.2 Rule 802 Nonattainment Review: The APCD is currently designated nonattainment for the state ozone and  $PM_{10}$  standards. The provisions of this rule apply to ozone precursor pollutants ( $NO_x$  and ROC),  $PM_{10}$  and  $PM_{10}$  precursor pollutants ( $NO_x$ , ROC and  $SO_x$ ).
- 4.3 <u>NEI Calculations</u>: The net emission increase calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This repair activity is being exempted from the New Source Review provisions of Regulation VIII, and thus there is no increase in NEI.

#### 5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII

### PERMIT EVALUATION FOR AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13255 and PART 70 MINOR MODIFICATION 13255

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#### 6.0 OFFSETS/ERCs

- 6.1 Offsets: As the cable vessel engines are exempt from New Source Review by obtaining a permit and limiting emissions to less than 10 tons per year, offsets are not required since there is no change in NEI.
- 6.2 <u>ERCs</u>: This activity does not generate emission reduction credits.

#### 7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

#### 8.0 CEOA / LEAD AGENCY

The APCD is the lead agency under CEQA for this project, and APCD CEQA Guidelines have been used. Based on our review of this specific project, the APCD has determined that the permitting action is ministerial (e.g., no discretionary action was taken) and is exempt from CEQA review for the following reasons:

- APCD permitted the same vessel in 2003 for a similar repair project. The emission factors for the engines were previously reviewed and approved. Therefore no new technical analysis was required.
- The Project is not subject to New Source Review (per Rule 202.F.8), and Best Available Control Technology and offsets were not applicable.
- The Fuel Measurement Plan is nearly identical to the previous plan reviewed by the APCD.
- This permit action required little to no judgment on the part of District staff.

#### 9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

#### 10.0 PUBLIC and AGENCY NOTFICATION PROCESS/COMMENTS ON DRAFT PERMIT

This repair activity was not subject to public notice.

#### 11.0 FEE DETERMINATION

Fees for the APCD's work efforts are assessed on a reimbursable basis. The project code for Platform Heritage is 200218.

#### 12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

David Harris	9/25/2009		
AQ Engineer	Date	Engineering Supervisor	Date